

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A transmission system (~~10~~) comprising
a transmitter (~~12~~) for transmitting an input signal to a receiver (~~14~~) via a transmission
channel (~~16~~), the transmitter (~~12~~) comprising

a splitter (~~20~~) for splitting up a single input signal on a single input line into at
least first and second frequency band signals,

~~the transmitter (~~12~~) further comprising~~

a first encoder (~~22~~) for encoding the first frequency band signal into a first
encoded frequency band signal and

a second encoder (~~24~~) for encoding the second frequency band signal into a
second encoded frequency band signal,

the transmitter (~~12~~) being arranged for transmitting the first and second encoded
frequency band signals via the transmission channel (~~16~~) to the receiver (~~14~~),

the receiver (~~14~~) comprising

a first decoder (~~26~~) for decoding the first encoded frequency band signal into a
first decoded frequency band signal and

a second decoder (~~28~~) for decoding the second encoded frequency band signal
into a second decoded frequency band signal,

~~the receiver (~~14~~) further comprising~~

a delay element for delaying one of the first and second decoded frequency band
signals, so as to compensate for various delays during the decoding of the first and
second encoded frequency band signals,

a combiner (~~30~~) for combining the first and second decoded frequency band
signals into an output signal, and

~~the receiver (~~14~~) further comprising~~

reconstruction means (~~48~~) for reconstructing the second decoded frequency band
signal when the second decoded frequency band signal is not available, characterised in
that the reconstruction means (~~48~~) are arranged for reconstructing the second decoded
frequency band signal from the first decoded frequency band signal.

2. The transmission system (~~10~~) according to claim 1, characterised in that the reconstruction means (~~48~~) are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

3. (Currently amended) The transmission system (~~10~~) according to claim 1, characterised in that the reconstruction means (~~48~~) are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

4. (Currently amended) The transmission system (~~10~~) according to claim 1, characterised in that the first frequency band signal and the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second frequency band signal and the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

5. (Currently amended) A receiver (~~14~~) for receiving, via a transmission channel (~~16~~), first and second encoded frequency band signals derived from a single input signal from a transmitter (~~12~~), the receiver (~~14~~) comprising

a first decoder (~~26~~) for decoding the first encoded frequency band signal into a first decoded frequency band signal and

a second decoder (~~28~~) for decoding the second encoded frequency band signal into a second decoded frequency band signal,

~~the receiver (14) further comprising~~

a delay element for delaying one of the first and second decoded frequency band signals, so as to compensate for various delays during the decoding of the first and second encoded frequency band signals,

a combiner (~~30~~) for combining the first and second decoded frequency band signals into an output signal, and

~~the receiver (14) further comprising~~

reconstruction means (48) for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means (48) are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

6. (Currently amended) The receiver (14) according to claim 5, characterised in that the reconstruction means (48) are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

7. (Currently amended) The receiver (14) according to claim 5, characterised in that the reconstruction means (48) are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

8. (Currently amended) The receiver (14) according to claim 5, characterised in that the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

9. (Currently amended) A method of transmitting a single input signal via a transmission channel (16), the method comprising:

splitting up the single input signal into at least first and second frequency band signals,
encoding the first frequency band signal into a first encoded frequency band signal and
encoding the second frequency band signal into a second encoded frequency band signal,
transmitting the first and second encoded frequency band signals via the transmission channel (16),

decoding the first encoded frequency band signal into a first decoded frequency band signal and decoding the second encoded frequency band signal into a second decoded frequency band signal,

delaying one of the first and second decoded frequency band signals, so as to compensate for various delays during the decoding of the first and second encoded frequency band signals,

combining the first and second decoded frequency band signals into an output signal, and reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal.

10. (Currently amended) The method of transmitting an input signal via a transmission channel ~~(46)~~ according to claim 9, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

11. (Currently amended) The method of transmitting an input signal via a transmission channel ~~(46)~~ according to claim 9, characterised in that a present frame of the second decoded frequency band signal is reconstructed from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

12. (Currently amended) The method of transmitting an input signal via a transmission channel ~~(46)~~ according to claim 9, characterised in that the first frequency band signal and the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second frequency band signal and the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

13. (Currently amended) A method of receiving, via a transmission channel ~~(46)~~, first and second encoded frequency band signals derived from a single input signal, the method comprising:

decoding the first encoded frequency band signal into a first decoded frequency band signal and decoding the second encoded frequency band signal into a second decoded frequency band signal,

delaying one of the first and second decoded frequency band signals, so as to compensate for various delays during the decoding of the first and second encoded frequency band signals,

combining the first and second decoded frequency band signals into an output signal, and reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal.

14. (Currently amended) The method of receiving, via a transmission channel ~~(16)~~, first and second encoded frequency band signals according to claim 13, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

15. (Currently amended) The method of receiving, via a transmission channel ~~(16)~~, first and second encoded frequency band signals according to claim 13, characterised in that a present frame of the second decoded frequency band signal is reconstructed from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

16. (Currently amended) The method of receiving, via a transmission channel ~~(16)~~, first and second encoded frequency band signals according to claim 13, characterised in that the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

17. (Currently amended) A speech decoder ~~(60)~~ for decoding first and second encoded frequency band speech signals derived from a single input signal, the speech decoder ~~(60)~~ comprising

a first decoder ~~(26)~~ for decoding the first encoded frequency band speech signal into a first decoded frequency band speech signal and

a second decoder ~~(28)~~ for decoding the second encoded frequency band speech signal into a second decoded frequency band speech signal,

~~the speech decoder (60) further comprising~~
a delay element for delaying one of the first and second decoded frequency band signals,
so as to compensate for various delays during the decoding of the first and second encoded
frequency band signals,

a combiner (30) for combining the first and second decoded frequency band speech signals into an output signal, and

~~the speech decoder (60) further comprising~~
reconstruction means (48) for reconstructing the second decoded frequency band speech signal when the second decoded frequency band signal is not available, characterised in that reconstruction means (48) are arranged for reconstructing the second decoded frequency band speech signal from the first decoded frequency band speech signal.

18. (Currently amended) The speech decoder ~~(60)~~ according to claim 17, characterised in that the reconstruction means ~~(48)~~ are arranged for reconstructing the second decoded frequency band speech signal from the first decoded frequency band speech signal by extending a bandwidth of the first decoded frequency band speech signal.

19. (Currently amended) The speech decoder ~~(60)~~ according to claim 17, characterised in that the reconstruction means ~~(48)~~ are arranged for reconstructing a present frame of the second decoded frequency band speech signal from a present frame of the first decoded frequency band speech signal and from a previous frame of the second decoded frequency band speech signal.

20. (Currently amended) The speech decoder ~~(60)~~ according to claim 17, characterised in that the first encoded frequency band speech signal and the first decoded frequency band speech signal are signals having a low frequency band and in that the second encoded frequency band speech signal and the second decoded frequency band speech signal are signals having a high frequency band.